



Section B - Supplies or Services and Prices

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	REPAIR POE LOCK GATE CYLINDERS --- FFP IN ACCORDANCE WITH THE ATTACHED SCOPE OF WORK. PLEASE CONTACT (313) 226-6421 FOR THE DRAWINGS. PURCHASE REQUEST NUMBER: W56MES-5280-3059	1	Lump Sum		

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NET AMT

FOB: Destination

## Section C - Descriptions and Specifications

FY06-REPAIR POE LOCK GATE

**Scope of Work**  
**Poe Lock Gate Cylinder Connection Parts**

**Background**

The Poe Lock has three (3) sets of miter gates. Each gate set consists of two (2) gate leaves, which are numbered 1-North, 1-South, 2-North, 2-South, 3-North, and 3-South. These gate leaves are each operated by a hydraulic cylinder. The ends of each of these hydraulic cylinders are joined to the gate leaves by a gate connection assembly (see drawings D2-22/5 and D2-22/8). There are six (6) gate connection assemblies in total. These assemblies have been determined to be inconsistent with the specifications on the drawing. Specifically, the cylinder gate connection (22/5-4) on gate 3-North has failed at the welded joints. It was determined by visual inspection that this joint was inadequately welded, causing the failure. The remaining connections were ultrasonically tested on each gate and all were determined to be inadequately welded.

**Work Required**

The scope of this contract is to rebuild all six (6) of these gate connection assemblies, manufacture one (1) complete spare assembly, and manufacture one (1) cylinder gate connection (22/5-4).

**Parts Supplied**

The following new parts will be supplied by the Government:

3 ea	Mark 22/8-Z Spherical Bearing
2 ea	Mark 22/8-AC Shaft Seal
2 ea	Mark 22/5-5 Bearing Retainer (refurbished)
1 ea	Mark 22/5-9 Pin (refurbished)
1 ea	Mark 22/5-11 Double Sleeve (refurbished)
1 ea	Mark 22/5-12 Sleeve (refurbished)

**Required Delivery Dates**

The following items must be received by these dates. Note that five (5) of the original assemblies will not be available until after the lock shuts down on 15 January 2006. The availability is as follows: One (1) on 18 January 2006, one (1) on 20 January 2006, one (1) on 24 January 2006, one (1) on 26 January 2006, and the final one (1) on 30 January 2006.

**15 November 2005**

1 ea	Rebuilt gate connection assembly
1 ea	New gate cylinder connection

**17 January 2006**

1 ea	Spare gate connection assembly
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**2 February 2006**

1 ea	Rebuilt gate connection assembly
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**15 February 2006**

2 ea Rebuilt gate connection assemblies

**1 March 2006**

2 ea Rebuilt gate connection assemblies

**Specifications****Rebuilding Gate Connection Assemblies**

The following specifications must be met on each of the parts when rebuilding the gate connection assemblies:

- 6 ea Mark 22/5-1 Flange
  - Refurbish original including sandblasting painted areas
  - Paint after assembly with Sherwin Williams V-103c black Vinyl Topcoat, or equivalent
- 6 ea Mark 22/5-2 Retaining Ring
  - Refurbish originals
- 6 ea Mark 22/5-3 Keeper Plate
  - Refurbish and sandblast original
  - Paint after assembly with Sherwin Williams V-103c black Vinyl Topcoat, or equivalent
- 6 ea Mark 22/5-4 Cylinder Gate Connection (Option 1)
  - Refurbish original by removing all welds and reweld in accordance to AWS D1.1 Table C8.1 (for ASTM A373), supplying weld procedure for review beforehand (welds will be ultrasonically tested before part is accepted)
  - Sandblast painted areas
  - Build up holes with weld and rebore
  - Paint with Sherwin Williams V-103c black Vinyl Topcoat, or equivalent
- 6 ea Mark 22/5-4 Cylinder Gate Connection (Option 2)
  - Manufacture new from ASTM A36 Structural Steel and weld in accordance to AWS D1.1, supplying weld procedure for review beforehand (welds will be ultrasonically tested before part is accepted)
  - Paint with Sherwin Williams V-103c black Vinyl Topcoat, or equivalent
- 10 ea Mark 22/5-5 Bearing Retainer
  - Refurbish original including sandblasting painted areas
  - Paint after assembly with Sherwin Williams V-103c black Vinyl Topcoat, or equivalent
- 12 ea Mark 22/5-6 Cover Gasket
  - Supply new
- 6 ea Mark 22/5-7 Cover
  - Refurbish original including sandblasting painted areas
  - Paint after assembly with Sherwin Williams V-103c black Vinyl Topcoat, or equivalent
- 6 ea Mark 22/5-8 Cover
  - Refurbish original including sandblasting painted areas
  - Paint after assembly with Sherwin Williams V-103c black Vinyl Topcoat, or equivalent
- 5 ea Mark 22/5-9 Pin
  - Refurbish original including sandblasting painted areas
  - Build up diameter with weld and turn in lathe
  - Paint top cap after assembly with Sherwin Williams V-103c black Vinyl Topcoat, or equivalent
- 6 ea Mark 22/5-10 Flanged Eye
  - Refurbish original including sandblasting painted areas

- Paint after assembly with Sherwin Williams V-103c black Vinyl Topcoat, or equivalent
- 5 ea Mark 22/5-11 Double Sleeve
  - Manufacture new from ASTM A36 Structural Steel
- 5 ea Mark 22/5-12 Sleeve
  - Manufacture new from ASTM A36 Structural Steel
- 96 ea Mark 22/8-C Hex Head Cap Screw
  - Supply new
- 72 ea Mark 22/8-M Hex Head Cap Screw
  - Supply new
- 96 ea Mark 22/8-V Hex Head Cap Screw
  - Supply new
- 96 ea Mark 22/8-W Flat Head Cap Screw
  - Supply new
- 72 ea Mark 22/8-X Heavy Hex Bolts and Nuts
  - Supply new
- 144 ea Mark 22/8-Y Plain Washer
  - Supply new
- 3 ea Mark 22/8-Z Spherical Bearing
  - Supply new
- 6 ea Mark 22/8-AA O-ring
  - Supply new
- 12 ea Mark 22/8-AB O-ring
  - Supply new
- 10 ea Mark 22/8-AC Shaft Seal
  - Supply new
- 6 ea Mark 22/8-AE Hex Head Cap Screw
  - Supply new
- 6 ea Mark 22/8-AV Alemite Fitting
  - Supply new

### **Spare Assembly**

The following specifications must be met on each of the parts when manufacturing the spare gate connection assemblies:

- 1 ea Mark 22/5-1 Flange
  - Manufacture new from ASTM A148 Grade 90-60 High Strength Steel Casting
  - Paint after assembly with Sherwin Williams V-103c black Vinyl Topcoat, or equivalent
- 1 ea Mark 22/5-2 Retaining Ring
  - Manufacture new from ASTM A276 Type 304 Stainless Steel
- 1 ea Mark 22/5-3 Keeper Plate
  - Refurbish original including sandblasting painted areas
  - Paint after assembly with Sherwin Williams V-103c black Vinyl Topcoat, or equivalent
  - Paint with Sherwin Williams V-103c black Vinyl Topcoat, or equivalent
- 2 ea Mark 22/5-5 Bearing Retainer
  - Refurbish original including sandblasting painted areas
  - Paint after assembly with Sherwin Williams V-103c black Vinyl Topcoat, or equivalent
- 2 ea Mark 22/5-6 Cover Gasket
  - Supply new
- 1 ea Mark 22/5-7 Cover

- Manufacture new from ASTM A36 Structural Steel
  - Paint after assembly with Sherwin Williams V-103c black Vinyl Topcoat, or equivalent
- 1 ea Mark 22/5-8 Cover
  - Manufacture new from ASTM A36 Structural Steel
  - Paint after assembly with Sherwin Williams V-103c black Vinyl Topcoat, or equivalent
- 1 ea Mark 22/5-9 Pin
  - Refurbish original including sandblasting painted areas
  - Build up diameter with weld and turn in lathe
  - Paint top cap after assembly with Sherwin Williams V-103c black Vinyl Topcoat, or equivalent
- 1 ea Mark 22/5-10 Flanged Eye
  - Manufacture new from ASTM A148 Grade 80-40 High Strength Steel Casting
  - Paint after assembly with Sherwin Williams V-103c black Vinyl Topcoat, or equivalent
- 1 ea Mark 22/5-11 Double Sleeve
  - Manufacture new from ASTM A36 Structural Steel
- 1 ea Mark 22/5-12 Sleeve
  - Manufacture new from ASTM A36 Structural Steel
- 16 ea Mark 22/8-C Hex Head Cap Screw
  - Supply new
- 12 ea Mark 22/8-M Hex Head Cap Screw
  - Supply new
- 16 ea Mark 22/8-V Hex Head Cap Screw
  - Supply new
- 16 ea Mark 22/8-W Flat Head Cap Screw
  - Supply new
- 1 ea Mark 22/8-Z Spherical Bearing
  - Supply new
- 1 ea Mark 22/8-AA O-ring
  - Supply new
- 2 ea Mark 22/8-AB O-ring
  - Supply new
- 2 ea Mark 22/8-AC Shaft Seal
  - Supply new
- 1 ea Mark 22/8-AE Hex Head Cap Screw
  - Supply new
- 1 ea Mark 22/8-AV Alemite Fitting
  - Supply new

### Gate Cylinder Connection

The following specifications must be met on each of the parts when manufacturing the gate cylinder connection:

- 1 ea Mark 22/5-4 Cylinder Gate Connection
  - Manufacture new from ASTM A36 Structural Steel and weld in accordance to AWS D1.1, supplying weld procedure for review beforehand (welds will be ultrasonically tested before part is accepted)
  - Paint with Sherwin Williams V-103c black Vinyl Topcoat, or equivalent
- 12 ea Mark 22/8-X Heavy Hex Bolts and Nuts
  - Supply new
- 24 ea Mark 22/8-Y Plain Washer
  - Supply new



Section E - Inspection and Acceptance

INSPECTION AND ACCEPTANCE

Supplies/services will be inspected/accepted at:

CLIN	INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
0001	N/A	N/A	N/A	N/A



## Section F - Deliveries or Performance

## DELIVERY INFORMATION

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
0001	15-NOV-2005	1	ADMINISTRATIVE BRANCH ST. MARY'S FALLS CANAL SAULT STE. MARIE MI 49783 FOB: Destination	

Section G - Contract Administration Data